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CENTRAL FAX CENTER

MAR 15 2007 Page 5

Application No.: 10/650410
Docket No.: FA1151USNA

REMARKS

Claims 1-12 are pending in the present application, and were made subject to a restriction requirement under 35 U.S.C. 121, as follows:

- I. Claims 1-11, drawn to a process for producing a CED coating;
- II. Claims 12, drawn to a coated product.

Applicants affirm the election of Group I, claims 1-11. Accordingly, Claim 12 is withdrawn from consideration.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to point out and particularly claim the subject matter which applicant regards as the invention, stating:

- (i) "the term CED is not defined";
- (ii) whether "thermally crosslinking the CED coating film" is after step a. or step b.;
- (iii) the Markush group is missing the word "and"; and
- (iv) claim 10 "the substrates" is in plural form.

Claims 2-11 depend directly or indirectly on claim 1. Amendments to claim 1, and are supported by the disclosure of page 7, lines 23 continuing to page 8, line 7. No new matter is added.

Claims 2-11 depend from claim 1. Consequently, the amendments to claim 1 are incorporated into claims 2-11 by operation of dependency.

Claim 11 is also amended, and is supported by the disclosure at page 6, lines 26-29. Although the Examiner's rejection for use of the plural term "substrates" is stated to relate to claim 10, Applicants recognize that this is likely an error since such term is not present in claim 10. Applicants believe the Examiner's rejection is directed to claim 11, and have responded herein accordingly. No new matter is added.

The Examiner has rejected claims 1, 2, 4-6, 8, 10 and 11 under 35 U.S.C. 102(b) as being anticipated by Opitz (US 5,810,987) in light of Eswarakrishnan (US 5,356,529) or Hawkins et al (US 5,047,128). Applicants respectfully traverse the rejection.

As amended, claim 1 now recites sequential steps a, b, c and d, wherein step b) is "rinsing the electrodeposited coating film with (i) ultrafiltrate and subsequently with water or (ii) water, to remove excess and/or non-adhering CED coating composition". None of the single references cited by the Examiner disclosed each and every element of Applicants'

Application No.: 10/650410
Docket No.: FA1151USNA

Page 6

claimed invention. Consequently, the references can not be said to anticipate Applicants' invention. Reconsideration of the rejection is requested.

The Examiner has rejected claims 3, 7 and 9 under 35 U.S.C. 103(a) as being unpatentable over Opitz '987 in view of Eswarakrishnan '529 or Hawkins '128 and in view of Tomizaki et al (US 6,375,820 B1). Applicants have amended claim 1, which is incorporated into claims 2-11. In view of Applicants' amendments, a rejection based upon the disclosure of the primary reference Opitz '987 can not be maintained.

Opitz, at col. 7 the cited reference discloses the steps of (i) small parts on a conveyor belt are dipped into the coating bath (line 18); (ii) when the conveyor belt emerges from the bath and are freed from excess paint by being rinsed with water (lines 33-36); (iii) water droplets can be removed by a blower (lines 41-43); (iv) parts are passed through a drying and baking oven (lines 39-41).

In the present invention it has been found that the metals desired in the CED coating film and incorporated into the CED coating film as a constituent of the CED coating composition do not have to be present as metal compounds in the CED coating composition. They may be passed onto and/or into the non-cross-linked CED coating film after CED coating, before subsequent thermal cross-linking. As recited in the claimed invention, this can be accomplished by bringing the non-cross-linked CED coating film into contact with an aqueous preparation of one or more metal compounds as claimed herein. Claim 1 requires sequential steps, and those sequential steps are distinguishable from the cited references. The steps of the present invention are a) cathodically electrodepositing a cathodic electrodeposition (CED) coating composition on a conductive substrate by immersing the substrate in a CED coating bath to form a CED coating film; b) rinsing the electrodeposited coating film with (i) ultrafiltrate and subsequently with water or (ii) water, to remove excess and/or non-adhering CED coating composition; c) contacting the CED coating film with an aqueous preparation of at least one metal compound; and d) thermally crosslinking the CED coating film. Applicants' invention provides the metal in the coating film after the substrate is coated, by using an aqueous preparation that contains the metal. This invention is not disclosed in the cited references, singly or in combination.

Furthermore, Applicants' invention provides numerous advantages over the prior art. The production of CED coating compositions can be simplified because there is greater freedom for the formulations of the CED coating compositions. Another advantage is that components which are incompatible with the at least one metal compound can still be

Application No.: 10/650410
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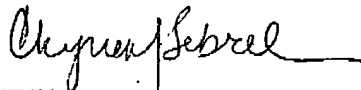
Page 7

incorporated into the CED coating composition. Additionally, the stability problems that can generally occur in dispersions containing metal ions can be avoided in the CED coating composition. The cited references do not disclose, nor do they afford, these advantages. Reconsideration of the rejection is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants request allowance of all pending claims.

Respectfully submitted,



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